

Notice of Allowability

Application No.

10/690,237

Examiner

Don Williams

Applicant(s)

KRANTZ ET AL.

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5 april 2007.
2. ☒ The allowed claim(s) is/are 1-43.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.


THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800

DETAILED ACTION

Allowable Subject Matter

Claims 1-43 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art fails to teach either singly or in combination an optical sensor apparatus for effectively reducing a nonactive gap comprising an optical sensor having a first linear array of sensor segments and a second linear array of sensor segments separated by a first nonactive gap having a first width; a first optical fiber having a first end oriented toward a field of view and a second end oriented toward a sensor segment of the first linear array of sensor segments for directing first image information from the field of view to the first linear array; and a second optical fiber for directing second image information from the field of view to the second linear array, the second optical fiber having a first end oriented toward the field of view and located a first distance less than the first width from the first end of the optical fiber and a second end oriented toward a sensor segment of second linear array of sensor segments and located a second distance greater than first distance from the second end of the first optical fiber thereby providing optical congruence between the field of view and the first and second image information without substantial time delay regarding claim (1); an optical sensor apparatus for effectively reducing a nonactive gap comprising a tri-linear optical sensor having a first linear sensor element and a second linear sensor element separated by a first

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nonactive gap having a first width and a third linear element separated from second linear sensor element by a second nonactive gap having a second width, a first optical fiber having a first end oriented toward a field of view and a second end oriented toward a sensor segment of first linear sensor element for directing first image information from the field of view to the sensor segment of the first linear sensor element, a second optical fiber having a first end oriented toward the field of view and located a first distance less than first width from the first end of the first optical fiber and a second end oriented toward a sensor segment of the second linear sensor element and located a second distance greater than the first distance from the second end of the first optical fiber, second optical fiber directing second image information from the field of view to the sensor segment of the second linear sensor element and a third optical fiber having a first end oriented toward the field of view and located a third distance less than the second width from the first end of the second optical fiber and a second end oriented toward a sensor segment of the third linear sensor element and located a fourth distance greater than the third distance from the second end of the second optical fiber, the third optical fiber directing third image information from the field of view to the sensor segment of the third linear array thereby providing optical congruence between the field of view and the first, second, and third image information without substantial time delay regarding claim (15) and claim (36); an apparatus for effectively reducing a nonactive gap of an optical sensor comprising a first fiber optic faceplate oriented toward a field of view and having a plurality of optical fibers mounted on the first optic faceplate and a second end or the optical fibers mounted to a second fiber optic

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faceplate and a second optical fiber of the plurality of optical fibers having a first end mounted to the first fiber optic faceplate a first distance less than nonactive gap from the first optical fiber and second optical fiber having a second end mounted to second fiber optic faceplate a second distance greater than first distance from first optical fiber such that second end of first optical fiber and second end of second optical fiber are spaced to align with and direct first and second image information from field of view to a first linear array and a second linear array respectively of the optical sensor wherein spacing of the second ends of the first and second optical fibers provides optical congruence between field of view and first and second image information without substantial time delay regarding claim (19); an apparatus for effectively reducing a nonactive gap of an optical sensor comprising a first optical fiber and a second optical fiber mounted each other such that a first end of the first optical fiber and a first end of second optical fiber are oriented toward a field of view and a first spacer mounted between a second end of first optical fibers and a second end of second optical fiber for locating the second end of first optical and the second end of the second optical fiber further apart than first end of first optical fiber and first end of second optical fiber to correspond to elements of an optical sensor and to provide optical congruence between field of view and image information directed from the field of view to the elements via the first and second optical fibers without substantial time delay regarding claim (29) and claim (42);

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

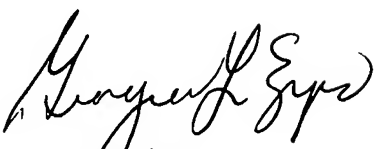
accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don Williams whose telephone number is 571-272-8538. The examiner can normally be reached on 8:30a.m. to 5:30a.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800